Dual Link PCI

Upgrade to Firewire or USB 2.0
User's Guide : First Edition

Dual Link PCI

www.adstech.com
Technical Support : 562.926.4338
Technical Support Hours : M-F
7am-6pm, PST

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A Letter from the President of ADS Technologies
"Connect, Create, and Store"

At ADS Technologies, Inc. we bring the best and latest multimedia technology to your PC. Our products allow you to "Connect, Create and Store".

CONNECT with our line of USB 1.1, USB 2.0 and 1394 Host and Hub devices. Today, external bus technologies such as USB and FireWire/ 1394 let you connect hundreds of devices to your PC or MAC. We have the connectivity solutions that allow you to get the most out of USB and 1394 technologies.

CREATE audio and video productions with our line of video capture and editing solutions. We have video editing and MPEG2/DVD Capture and Authoring solutions to fit everyone's needs, ranging from the novice level to the professional level.

STORE that multimedia masterpiece with one of our 1394 storage or USB 2.0 Storage solutions. Today's multimedia files are getting larger and larger. You need solutions that help you easily and cost effectively store your work; we've got those solutions.

More than ever, my goal has been to bring new technologies to the consumer market at affordable prices and with significant value to you, our customer.

ADS products are easy to use. Most of our products are Plug-and-Play, easy to install and offer software to help get the best value out of the hardware product. And if you do need help, we will do our best to support you. We want every customer to be a happy ADS customer.

The combination of technology innovation, affordability, quality, value and support has made our products award-winners in the press and at conventions. More over they are winners with our customers.

I wish to thank you for choosing ADS Technologies and I hope you enjoy your new multimedia experience.

Sincerely,

Michael McCoy
President

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Introduction

Add 2 FireWire Ports and 3 USB 2.0 Ports to your PC

Use the Dual Link PCI card and Video Studio 6 (Inlcuded) to transfer video from your digital camcorder to your PC, edit the video, add titles, effects, background music and more. Then send your edited video back to your digital recorder or save it as an MPEG1 File that you can then master to a VCD that can play on most DVD Players.

FireWire/1394 and USB 2.0 are the latest in high-speed external bus technology. This means you can instantly connect devices like DV Camcorders or Firewire Hard Drives to your PC without opening up the case. FireWire offers true plug and play and hot swapping of devices. Just plug in your digital camcorder, launch the software and you're ready to make movies.

Dual Link Features:
• Connect to Digital Camcorders
• Connect the PYRO 1394 WebCam
• Connect to 1394 Hard Drives/USB2.0 Drives
• Edit video and send out to tape
• Capture still images
• Produce Digital Video Movies or VCD Movies for your DVD Player
• 2 Firewire ports at 400 Mbps/3 USB 2.0 ports at 480 Mbps
• Fully IEEE 1394a and USB 2.0 compliant
• Plug and Play

Requirements:
• Intel Celeron 400MHz or above
• AMD Athlon or Duron (any speed)
• Windows 98, Windows 98SE, Windows 2000, Windows ME,
  or Windows XP
• 64 MB of RAM (128MB or higher Recommended)
• Sound card
• AGP or PCI video card with 4 MB of RAM
• CD-ROM Drive
• 200 MB hard disk space for capture/editing applications
• 4 GB hard disk space (20 minutes of raw DV footage)
• Available PCI slot

Installation Guide

Package Contents

1. Dual Link PCI Card
2. CD with Drivers and Video Studio 6
3. 4-pin to 6-pin IEEE 1394 (FireWire) cable
4. User's Manual

Note: If you did not receive one or more of the contents listed above inside the Dual Link package, please contact the vendor you purchased it from or contact ADS directly.

What you need to install Dual Link PCI:
• Screwdriver
• Windows 98, Windows 98 SE, Win ME CD, Windows2000 or Windows XP CD.
• Dual Link CD
• Available PCI slot

<u>Getting Started Using Dual Link PCI Card</u>
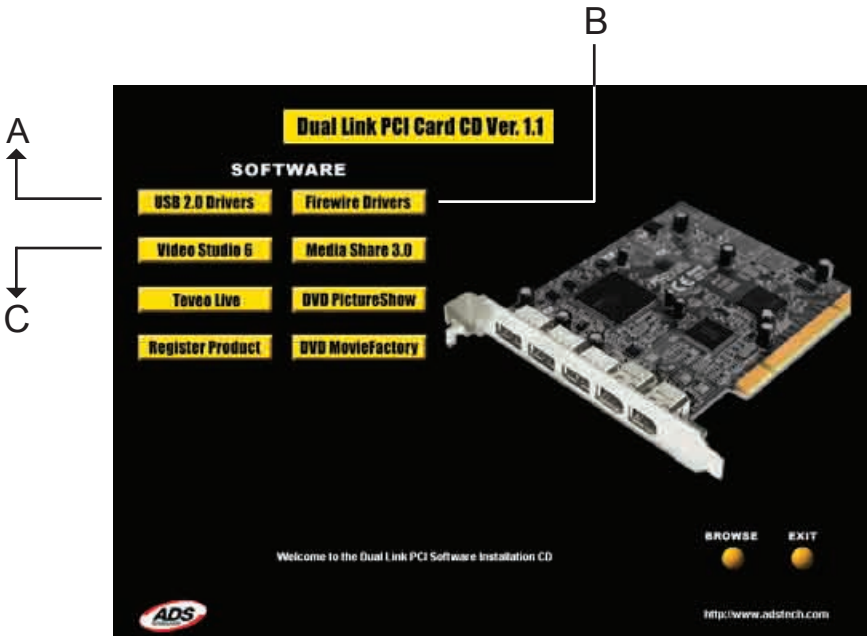## <u>INSTALL IN THIS ORDER:</u>

Step 1 Driver Installation
Step 2 Hardware Installation
      Dual Link PCI card Hardware install
      Dual Link PCI card Driver install
Step 3 Connecting Devices

Driver Installation

A. Install USB 2.0 Drivers
   For Windows 98 GOLD/SE/ME users only. For Windows 2000 + XP
   users, proceed to hardware installation

B. Install Firewire Drivers
   For Windows 98 GOLD users only. For Windows 98 SE/ME/2000/XP
   users, proceed to hardware installation

C. Install VideoStudio 6 For Video Editing

D. Install Optional trial software

Hardware Installation

Step 1

Power down your computer and disconnect the power cord. Be sure to remove the power cord completely from your computer as shown in the picture to the left.

Step 2

Remove the screws that hold the panel/shell of your computer (located on the back of the computer). Be sure to put the screws you removed in a safe place, as you will need them again when replacing the shell on your computer.

Step 3

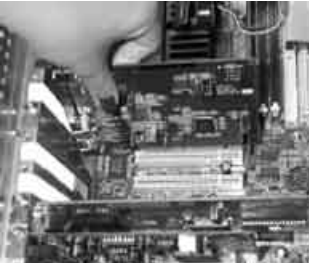Carefully remove the panel/shell from your computer.

Step 4

With the power cable disconnected from your computer, touch the metal part of the case to ground yourself. This will discharge any static electricity from your body which can damage your computer.

Step 5
Locate an available PCI expansion slot (usually white/beige in color). This will be in the area of your computer where other cards that look similar to the Dual Link card are installed.

Step 6
Visually confirm that the Dual Link PCI Card will fit into the available slot you have chosen.

Step 7
If necessary, remove the knockout on the back of your computer which corresponds to the PCI slot you have confirmed as your selection. If there is a screw, place it in a safe place as you will be using it to attach the Dual Link Card.

Step 8
Push the Dual Link PCI Card firmly into the PCI slot. Apply pressure as needed (but do not force the card) until the edge connector is completely in the slot.

Step 9

Mount the Dual Link PCI Card in place with a screw. Make sure the screw is firmly tightened so the Dual Link PCI Card does not slide out of its seated position.

Step 10

Replace the computer's panel/shell and screw it back in place with the screws you removed in step 2.

Step 11

Now that your Dual Link PCI Card is installed and the shell is in place, you can safely connect the power cable. Now turn on your computer.

Windows will install drivers for the dual link PCI card and you will be guided by windows through the driver installation process

Connecting Devices

FireWire

Once you have installed the camcorder drivers you are ready to connect your camcorder to the Dual Link Card.   Follow these steps to ensure that the operating system recognizes your camcorder and you are familiar with the camcorder driver your system is using.

1. Use the External Power source supplied with your camcorder. Many camcorders do not have enough power when running from the battery.
2. Turn the Camcorder ON to the VCR/VTR mode.
3. Connect the DV Cable supplied with the Dual Link to any available port on the Dual Link card and your digital camcorder.
4. Your Camcorder will be recognized, as a new device by Windows and the camcorder driver will be loaded. In some cases Windows may ask for the Windows 98, WinME, WinXP or Win2000 CD to load other needed files.
5. Open Device Manager (Start, Settings,Control Panel, System, Device Manager Tab). Check to see how your camcorder is listed. If you are using Win98 your camcorder will appear as "1394 DV Camcorder" appears under "Sound, Video and Game Controllers". You are using the Texas Instruments camcorder driver. If you are using Win98SE, WinMe, WinXP or Win2000 your camcorder will appear in Device Manager under "Imaging Device" and will be listed as a "DV camera or VCR". Your camcorder is using the Microsoft camcorder drivers.

You can also connect Firewire drives/drive kits, Firewire webcams and any other Firewire device to the Dual Link PCI Card.

USB Devices
Any USB 2.0 or USb 1.1 Device may be connected to the Dual Link PCI Card. To learn more about USB 2.0/Firewire products, please check our website, WWW.ADSTECH.com

INSTALL VideoStudio 6

1. Connect your camcorder. **Turn on to VTR/VCR/
   PLAY Mode.**
note: Your Camcorder must be connected and "On"
2. INSTALL Video Studio from Dual Link DV CD. Follow the
   installation instructions.
3. Re-Boot when the Installation is complete.
4. Run VideoStudio 6. Go to page 16 of this Guide and start a new
   project. Make sure your camcorder is turned on to VTR/
   VCR MODE and connected to the Dual Link PCI BOARD at this time.

Using Ulead VideoStudio

WHATS NEW IN ULEAD VIDEOSTUDIO 6

Creating movies has been simplified with Ulead VideoStudio 6. It is
designed with an even more amazing tool for your movie making needs.
With its new look, enhanced and added features, creating movies would
surely be more exciting and easy.

• New user-interface
• Overlay Step and Overlay Track
• Capture MPEG fromm IEEE1394
• Enable to maximize Preview Window
• Import Ulead COOL3D Animations
• Create QuickTime video files for streaming
• More title motion styles
• Instant Preview
• Automatically capture scenes into multiple files
• Multiple CD-ROM support

**WARNING: EVEN THOUGH VIDEOSTUDIO 6 WAS DESIGNED FOR
THE ENTRY LEVEL USER, PLEASE SPEND THE TIME TO LEARN T
HE PROGRAM, FOR HELP ANYWHERE IN VIDEOSTUDIO 6, PRESS
THE F1 KEY FOR HELP.**

CREATING NEW PROJECTS

1. Run Video Studio. Click Start on the Step Panel.
2. Click New Project in the Options Panel. This opens the New Project dialog box.
3. Specify a path to store captured files to be used in the project.
4. Select a template that matches your requirements. It is recommended that you select a template that will be used for the target medium. Or, if you want to use the template from a previous movie file you created, select Template from an existing video file then click Browse to locate the movie file.

Tips: Since you are capturing video from a DV/D8 camcorder, select NTSC DV or PAL DV as the template to make your project settings the same as that of the captured video. This speeds up rendering and lets you preview your project a lot faster.

5. Click OK.

SETTING UP VIDEOSTUDIO 6 FOR DV

1. Make sure your camcorder is connected to your Dual Link PCI tcapture card.
2. Double check that your camcorder is on and set to Play mode (usually labeled as VTR or VCR mode on most camcorders). Again, refer to your camcorder's manual for specific instructions.
3. Choose DV as the capture file format in the Capture Settings Tab.VideoStudio then automatically enables the Ulead DirectShow Capture Plug-in.

Note: To manually enable the capture plug-in, click Settings and Commands and select Change Capture Plug-in. In the dialog box, select Ulead DirectShow Capture Plug-in.

4. VideoStudio also automatically enables device control for your DV camcorder. Test and see if you can control your camcorder from VideoStudio. If you cannot operate your DV camcorder in VideoStudio, see Troubleshooting DV device control for instructions on how to manually set up the device control.

CAPTURING DIGITAL VIDEO INTO VIDEO STUDIO 6

1. Go to the Capture Step. Be sure you are in Capture mode.
2. Specify the length of video you want to capture by entering the timecode in the Capture duration entry box. (If you don't specify a length before capturing, you can stop the capture manually.)
3. Click Options in the Capture Settings Tab of the Options Panel.
4. In the Capture Options dialog box, select Capture to Library if you want to add the video clip into the library. By doing this, you make the video clip available for other projects.
5. Click Capture Video to start capturing.
6. To stop capturing, click Capture Video again or press ESC. If you have specified the duration for capturing, Ulead VideoStudio automatically stops the capturing process for you.* VideoStudio should have automatic control ("device control") over your camcorder and should play your tape. Video from the camcorder should be visible in the Preview Window. If device control is not functioning properly, see Troubleshooting DV device control for instructions on how to set up the device control for your camcorder.

TROUBLESHOOTING DV DEVICE CONTROL

"Device control" means that VideoStudio can automatically Play, Rewind, Stop, Fast-forward, and Record to and from your camcorder. This will not work on some older capture cards and camcorders (e.g. ones that are not OHCI compliant). This does not mean that you cannot use VideoStudio to edit your video; only that automatic device control is not possible.

To set up the device control:

1. Connect your camcorder to your IEEE-1394 capture card. Carefully follow the instructions for your capture card.
2. Turn on your camcorder and set it to Play mode (usually labeled as VTR or VCR mode on most camcorders). Again, see your camcorder's manual for specific instructions.
3. Click Settings and Commands then choose the Select Device Control option.

4. In the Device Control dialog box, click the Current device list.
5. Select your device* from the list.
Note: There are many capture card device control options available. The following is a list of some of the more
common ones:
- MS 1394 Device Control (the default device control for
  Windows 98 SE, Windows ME, Windows 2000,
  Windows XP)
- TI 1394 Device Control (Windows 98 Gold)

SAVING YOUR MOVIE

Once you have gone through all the steps to create your movie, CAPTURE, STORYBOARD, EFFECT, OVERLAY, TITLE and AUDIO, you will come to the finish Step. In the Finish Step you will RENDER ALL of the VIDEO CLIPS, MUSIC and EFFECTS into one VIDEO file.

CREATING A FINISHED MOVIE

1. Click Finish on the Step Panel.
2. To create a movie file using the settings of the current project template, click the Create Video File icon and proceed directly to step 9.
3. To select a movie template to use for creating the movie, click the arrow button next to the Create Video File icon. Make sure that the selected template provides proper saving options for creating the desired movie file. Then proceed directly to step 9.
Note: To check the saving options provided by a movie template, click the Settings and Commands button then select Make Movie Manager.
4. If there are no suitable templates available, select Custom in the Create Video File menu.
5. In the ensuing dialog box, select the desired file format for your movie file.
6. Click the Options button to view and change saving options. Specify whether you want to save only a portion or the entire project. If you intend to transfer the movie to videotape later on, adjust the settings to conform to either NTSC or PAL standards.
7. Click Select to open the Select Preview Image dialog box where you can choose a frame to represent the file whenever you select it from a dialog box that supports preview information. (This is only available for some file formats)
8. Type a subject and a description for the movie, this is optional.
9. Assign a file name and the destination for the file you want to create.
10. Click Save to create (render) the file. After creating the movie, the movie file is put inside the Video Library.

Notes:
Ulead VideoStudio also lets you create movies in file formats such as Windows Media Video (*.wmv), QuickTime (*.mov), and RealNetworks RealVideo (*.rm) for streaming over the Internet and for playback on computers. These types of files cannot be inserted into a project and edited. Click Create Sound File to save the inserted sounds from your video into a separate audio file. Ulead VideoStudio then automatically places the audio file in the Audio library and makes it available for future use.

RECORDING A PROJECT INTO YOUR DV CAMERA

1. Connect your camcorder to your IEEE-1394 capture card. Carefully follow the instructions for your capture card.
2. Turn on your camcorder and set it to Play mode (usually labeled as VTR or VCR mode on most camcorders).
3. Open the project that you want to record on your videotape.4. Click Settings and Commands and select Project Properties. Make sure that the project properties have been properly set for DV recording.
5. If you want to record only a part of the project, use the Trim Bar to select the desired segment for recording.
6. In the Finish Step's Options Panel, click Project Playback.
7. In the Project Playback - Options dialog box, choose to record the Entire project or select the Preview range option to record only a selected part of your project. Then, select Use Device Control and click Next.
8. In the Project Playback - Device Control dialog box, you can move forward or backward within the videotape to choose where you want to start recording. Make sure you don't overwrite the content in your videotape. Use the buttons below the Preview Window to position the videotape*. Before actual recording, you can first preview your project on the LCD monitor (or viewfinder) of your camcorder by clicking Transmit to device unit for preview.
9. When ready, press the Record button. (Click Stop if you want the recording to terminate at the portion where the video project is currently playing.)
10. Click Finish to end the recording session.

CREATING MPEG1 MOVIES FOR VCD

A VCD is a special format of CD-ROM that contains a special video file in MPEG-1 format.

To create an MPEG-1 movie file for VCD:
1. Open your project and go to the Finish Step.
2. Click the down-arrow of the Create Video File button.
3. From the pop-up menu, select the NTSC VCD or PAL VCD movie template, depending on what video standard you want.
4. Enter a file name then click Save to create the MPEG-1 file.
Note: The procedure above will create a WhiteBook standard MPEG-1 file that is ready to be burned (written) to a CD-ROM disc using a CD-R drive that can write CDs. You will need VCD creation software to create a valid VCD (just copying the MPEG file to a CD-ROM will not work).

HELP RESOURCES

Video Studio Help – Touch "F1" on your keyboard at any time.
Video Studio User Manual – on Dual Link CD

ADS Web Site **www.adstech.com**

ON-LINE HELP
We are constantly adding more information to the On-Line Help section of our web site. Click the "Support" button on the home page or the "Technical Support" button on any ads web page. Click on the Dual Link or PYRo – ON-Line HELP. Here you will find many answers to commonly asked questions.

SOFTWARE UPDATES
We are constantly updating camcorder drivers, adding utilities or posting bug fixes or patches in the DOWNLOADS section of our web site. Click the "Support" button on the home page or the "Technical Support" button on any ads web page.

FOR EUROPEAN CUSTOMERS ONLY
Most of the DV camcorders shipping in Europe only allow for DV OUT but not DV IN. To fix this, third party companies have provided hardware to enable the DV INPUT for most DV CAMCORDERS. Please check these internet links:

http://www.datavision.co.uk/

http://www.lynxdv.com/

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Resources on the Web

Web page with Dual Link info
http://www.price98.freeserve.co.uk/

Forum with tips & info for the ADS PYRO & Ulead VS & MS Pro
http://pub9.ezboard.com/bpyro1394

ADS Technologies, Inc. Forum on the WWUG (World Wide User Groups)
http://www.wwug.com/forums/ads-tech/index.htm

Service and Warranty:

Service:

If you require assistance with the installation, operation, or application of your ADS Technologies, Inc. product there are several options available to you as described in the technical support section of this manual. Your primary source for information and assistance is always your computer store or computer parts dealer. If your ADS product needs repair or replacement, contact your dealer for on-site repair service.

The ADS Technologies technical support and customer service staff can aid in solving many problems. Our technical support department is available to repair any ADS Technologies product. You or your dealer must return products to our factory for repair or warranty replacement.

Return/Replacement:

If you need to return your ADS Technologies product you should return the product directly to the dealer or store where you purchased the product. Each individual computer store or dealer sets product returns policies for their customers. ADS Technologies, Inc. cannot be responsible for the actions or policies set by our dealers. If you desire to return the product for a refund, you must get the refund from the dealer or store you purchased the product from. If you purchased the product directly from ADS please see the "Terms and Conditions of Sale" on the reverse side of your sales invoice.

Returns to ADS Technologies, Inc. are for repair or warranty replacement only. If you need to return product to ADS Technologies, Inc. for repair or replacement you must follow these steps:

1. Call our Technical Support department at (562) 926-4338 in the USA or +353-61-702042 in Europe to obtain a Return Merchandise Authorization (RMA) number.

2. The RMA number is valid for 30 days.

3. Ship the product to the ADS factory with the RMA number marked on the inside and outside of the package. If there is no RMA number on the package or the RMA number has expired, the shipment will be refused. ADS will not be liable for lost or mis-shipped products.

4. Replacement product cannot be shipped to you until the defective product has been
received by ADS.

5. Once the product is received at the factory it will be tested and then repaired or replaced.

6. Turn around time is approximately one week. A repaired or replacement product will be shipped back to you.

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Warranty:

This ADS Technologies, Inc. product comes with a One (1) year hardware warranty. ADS Technologies, Inc. (ADS) warrants this product against defects in material and workmanship for a period of One (1) year from the date of original purchase from ADS or an authorized ADS dealer. This warranty applies only to the original purchase of the product and is not transferable. This warranty does not cover any incompatibilities due to the user's computer, hardware, software or other related system configuration in which the product interfaces. Proof of
purchase will be required before any warranty consideration by ADS occurs.

This warranty does not cover any damage caused by negligence, non-authorized modifications, or parts installed without prior written permission from ADS.

This warranty does not apply if the product has been damaged by accident, abuse, or misapplication, nor as a result of service to the product by anyone other than ADS.

If your ADS product is not in working order, your only recourse is repair or warranty replacement, as described above. UNDER NO CIRCUMSTANCES will ADS Technologies, Inc. be liable for consequential damages, including but not limited to any lost savings, lost profits, or any other damages, caused by the use of any ADS Technologies, Inc. product or inability to use the product, even if the dealer or ADS Technologies, Inc. has been advised of such liability or other claims. This includes damage to property and, to the extent permitted by law, damages for personal injury. This warranty is in lieu of all other warranties including implied warranties of merchantability and fitness for a particular purpose.

FCC Information

Federal communications Commission Radio Frequency Interference Statement

Note: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

* Reorient or relocate the receiving antenna

.
* Increase the separation between the equipment and receiver.

* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

* Consult the dealer or an experienced radio TV technician for help.

Notice:

(1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

(2) Shielded interface cables and AC power cord, if any, must be used in order comply with the emission li

Dual Link PCI

ADS Technologies

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